

CLAIMS LISTING

The claims in this listing will replace all prior versions, and listings, of claims in the application.

1. (Original) A fuel level system for an automobile including a level sender unit installed in a fuel tank of the automobile and a fuel gauge, comprising:

a resistor installed inside or outside the level sender unit within the fuel level system to increase an electric current flowing through a contact of the level sender unit.

2. (Currently Amended) A fuel level system for an automobile, comprising:
a level sender unit which is installed within a fuel tank, and includes a level resistor of which a resistance value varies by means of a movable piece operated in a state where it is interlocked with a float, and an additional resistor connected in series to a side of the level resistor and an ignition power source or constant-voltage power source connected in series to the additional resistor; and

an ECU which includes a pull-up resistor connected in series to the level resistor of the level sender unit and to a power source thereof, and a monitoring resistor and an AD converter connected to the pull-up resistor, thereby measuring the value of voltage drop due to the level resistor and the pull-up resistor and sending the measured value to a fuel gauge through the AD converter.

3. (Original) The system as claimed in claim 2, wherein a diode for preventing an inverse electric current is further disposed between the level resistor and the pull-up resistor.

4. (Original) The system as claimed in claim 2, wherein a further resistor is disposed between a connection of a lower end of the level resistor and the additional resistor and a ground connected to the movable piece, thereby preventing an inverse electric current.

5. (Currently Amended) A fuel level system for an automobile, comprising:
a level sender unit which is installed within a fuel tank, and includes a level resistor of which a resistance value varies by means of a movable piece operated in a state where it is interlocked with a float, and an additional resistor of which one side is connected in series to the level resistor and the other side is grounded; and

an ECU which includes a pull-down resistor of which one side is grounded and the other side is connected in series to the level resistor of the level sender unit, a power source connected in series to the movable piece, and a monitoring resistor and an AD converter connected to the pull-down resistor, thereby measuring the value of voltage drop due to the level resistor and the pull-down resistor and sending the measured value to a fuel gauge through the AD converter.

6. (Currently Amended) A fuel level system for an automobile, comprising:
a level sender unit which is installed within a fuel tank, and includes a level resistor of which a resistance value varies by means of a movable piece operated in a state where it is interlocked with a float, and an additional resistor connected in series to a side of the level resistor and an ignition power source or constant-voltage power source connected in series to the additional resistor; and
a fuel gauge which includes a pull-up resistor connected in series to the level resistor of the level sender unit and to a power source thereof, and a monitoring resistor and a microcomputer connected to the pull-up resistor,-
~~whereby~~ wherein the microcomputer measures the value of voltage drop due to the level resistor and the pull-up resistor and informs a user of the value.

7. (Original) The system as claimed in claim 6, wherein a diode for preventing an inverse electric current is further disposed between the level resistor and the pull-up resistor.

8. (Original) The system as claimed in claim 6, wherein a further resistor is disposed between a connection of a lower end of the level resistor and the additional resistor and a ground connected to the movable piece, thereby preventing an inverse electric current.

9. (Currently Amended) A fuel level system for an automobile, comprising:
a level sender unit which is installed within a fuel tank, and includes a level resistor of which a resistance value varies ~~by means of~~ a movable piece operated in a state where it is interlocked with a float, and an additional resistor of which one side is connected in series to the level resistor and the other side is grounded; and

a fuel gauge which includes a pull-down resistor connected in series to the level resistor of the level sender unit and to a power source thereof, and a monitoring resistor and a microcomputer connected to the pull-down resistor,-
~~whereby~~ wherein the microcomputer measures the value of voltage drop due to the level resistor and the pull-down resistor and informs a user of the value.

10. (Currently Amended) A fuel level system for an automobile,
comprising:

a level sender unit which is installed within a fuel tank, and includes a level resistor of which a resistance value varies ~~by means of~~ a movable piece operated in a state where it is interlocked with a float, and an additional resistor connected in series to a side of the level resistor and an ignition power source or constant-voltage power source connected in series to the additional resistor; and

a cross coil or bimetal gauge provided with a power source and connected in series to the level resistor of the level sender unit and the power source.

11. (New) A fuel level monitoring system, comprising:

a level sender unit in a fuel tank, the level sender including a level resistor having a variable resistance and connected to a movable member attached to a float, and a first resistor electrically connected in series between the level resistor and a first power source;

an electronic control unit (ECU) including a pull-up resistor electrically connected in series between the level resistor and a second power source, a monitoring resistor, and an analog-to-digital (AD) converter electrically connected to the pull-up resistor, the ECU configured to measure a voltage difference caused by the level resistor and the pull-up resistor and to communicate the measured voltage difference to a fuel gauge via the AD converter; and

a second resistor connected between a common node of the level resistor and the first resistor and a ground potential electrically connected to the movable member,

wherein the second resistor has a lower resistance than the first resistor.

12. (New) A fuel level monitoring system, comprising:

a level sender unit in a fuel tank, the level sender including a level resistor having a variable resistance and connected to a movable member attached to a float, and a first resistor electrically connected in series between the level resistor and a first power source;

one of a cross coil or a bimetal gauge electrically connected to a second

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power source and connected in series to the level resistor and the second power source; and

a second resistor connected between a common node of the level resistor and the first resistor and a ground potential electrically connected to the movable member,

wherein the second resistor has a lower resistance than the first resistor.